

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
3 March 2005 (03.03.2005)

PCT

(10) International Publication Number  
**WO 2005/018417 A3**

(51) International Patent Classification<sup>7</sup>: **A61M 5/00**

(21) International Application Number:  
PCT/US2004/024612

(22) International Filing Date: 30 July 2004 (30.07.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/494,698 13 August 2003 (13.08.2003) US

(71) Applicant (for all designated States except US): **BOARD OF SUPERVISORS OF LOUISIANA STATE UNIVERSITY AND AGRICULTURAL AND MECHANICAL COLLEGE** [US/US]; Louisiana State University, Suite 115, System Building, 3810 West Lakeshore, Baton Rouge, LA 70808 (US).

(72) Inventors; and

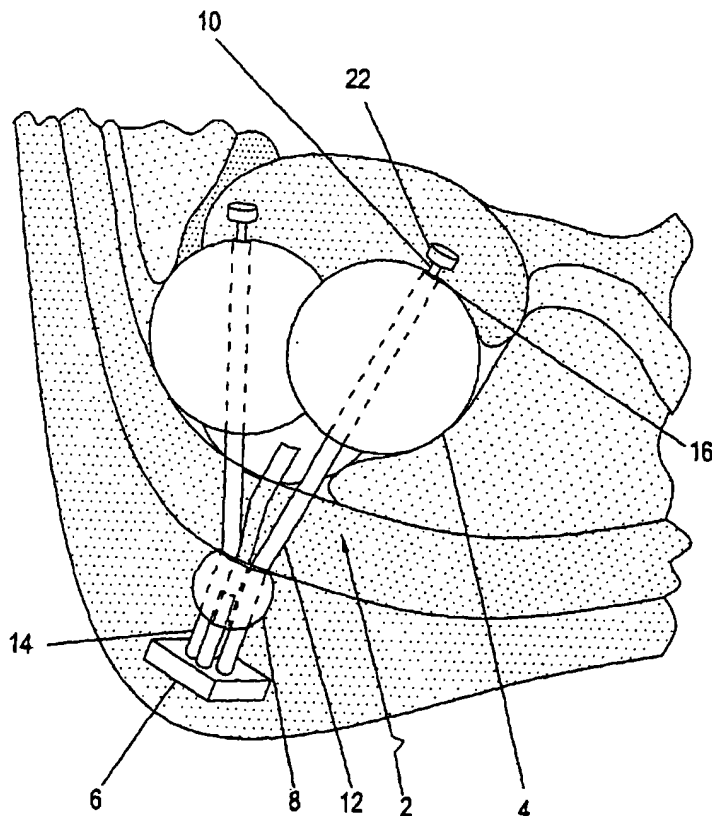
(75) Inventors/Applicants (for US only): **BRAZZINI, Augusto** [PE/US]; 28 English Turn Drive, New Orleans, LA 70131 (US). **KIRSCH, David, S.** [US/US]; 739 Pecan Grove Lane, Jefferson, LA 70121 (US). **CAS-TANEDA-ZUNIGA, Wilfrido, R.** [US/US]; 2 Stilt Street, New Orleans, LA 70124 (US). **D'AGOSTINO, Horacio** [AR/US]; 1826 Hunter Circle, Shreveport, LA 71119 (US).

(74) Agent: **PORTER, André, J.**; Taylor, Porter, Brooks & Phillips, L.L.P., P.O. Box 2471, Baton Rouge, LA 70821-2471 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,

[Continued on next page]

(54) Title: **COMPRESSIVE DEVICE FOR PERCUTANEOUS TREATMENT OF OBESITY**



(57) Abstract: An apparatus and method for treating morbid obesity in mammals using a gastric reduction assembly that reduces the gastric volume of a stomach and induces early satiety. The gastric reduction assembly comprises at least two or more expandable devices (4), each able to be adjustably inflated with a fluid (e.g., a liquid or a gas) using a filling tube (12). In a preferred embodiment, the gastric reduction assembly is inserted through the abdominal wall and placed at a location exterior to the stomach body, avoiding an abdominal incision. Once positioned near the stomach body, the gastric reduction assembly allows for the external compression of the stomach body to limit food intake. The gastric reduction assembly also minimizes the potential for shifting of the expandable devices after insertion to the stomach body to revert to its pre-compressed state.



PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,  
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,  
ZW.

SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,  
GW, ML, MR, NE, SN, TD, TG).

**Published:**

— with international search report

**(84) Designated States** (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,

**(88) Date of publication of the international search report:**

6 May 2005

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/24612

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A61M 5/00

US CL : 606/191

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 606/191-198; 604/99.01-100.03, 101.01-101.05

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,234,454 A (BANGS) 10 August 1993 (10.08.1993), see entire document.	1, 6, 8-16
---		7
Y		

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T"

later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X"

document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y"

document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&"

document member of the same patent family

Date of the actual completion of the international search

07 December 2004 (07.12.2004)

Date of mailing of the international search report

11 FEB 2005

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Facsimile No. (703) 305-3230

Authorized officer

Catherine S. Williams

Telephone No. 571-272-4970